

IN THE CLAIMS

Current Listing Of Claims:

1-12. (Cancelled)

13. (Currently amended) An electroless plating structure on a ~~metal-six~~ copper (~~M6 Cu~~) pad, having a composition comprising:

$pM_w sM_x B_y P_z$

wherein pM is a primary metal selected from at least one of Cu, Ag, Au, Pd, Pt, Ni, Rh, and Ir;

wherein sM is a secondary metal selected from zero to at least one of Cr, Mo, W, Mn, Tc, and Re;

wherein B and P represent boron and phosphorus, respectively; and wherein w has a range from about 0.5 to about 0.99, x has a range from about 0.0 to about 0.2, y has a range from about .01 to about 0.1, and z has a range from about 0.0 to about 0.02.

14. (Cancelled)

15. (Currently amended) The electroless plating structure according to claim 1413, wherein the composition of $pM_w sM_x B_y P_z$ is selected from the group consisting of: pMB, pMBP, pMCrB, pMCrBP, pMMoB, pMMoBP, pMWB, pMWBP, pMMnB, pMMnBP, pMTcB, pMTcBP, pMReB, and pMReBP; and pM comprises at least one of Cu, Ag, and Au.

16. (Currently amended) The electroless plating structure according to claim 13, wherein the composition of $pM_w s M_x B_y P_z$ is selected from the group consisting of: pMB, pMBP, pMCrB, pMCrBP, pMMoB, pMMoBP, pMWB, pMWBP, pMMnB, pMMnBP, pMTcB, pMTcBP, pMReB, and pMReBP.

17. (Currently amended) The electroless plating structure according to claim 16, wherein pM comprises at least one of Ni, Pd, and Pt.

18. (Cancelled)

19. (Currently amended) The electroless plating structure according to claim 1813, wherein the composition of $pM_w s M_x B_y P_z$ is selected from the group consisting of: pMCrB, pMMnB, pMTcB, and pMReB; and pM comprises at least one of Co, Rh, and Ir.

20. (Currently amended) The electroless plating structure according to claim 13, wherein the primary metal is a metal combination selected from ~~cobalt-nickel, cobalt-nickel-silver, cobalt-nickel-silver-copper, cobalt-silver, cobalt-silver-copper, cobalt-copper, cobalt-copper-nickel, nickel-silver, nickel-silver-copper, nickel-copper, and silver-copper.~~

21-31. (Cancelled)

32. (Currently amended) An electroless plating structure on a metal-six copper (M_6Cu)-pad, having a composition comprising:



wherein pM is a primary metal selected from at least one of Cu, Ag, Au, Co, Pd, Pt, Ni, Rh, and Ir;
wherein sM is a secondary metal selected from zero to at least one of Cr, Mo, W, Mn, Tc, and Re;
wherein B and P represent boron and phosphorus, respectively; and
wherein w has a range from about 0.5 to about 0.99, x has a range from about 0.0 to about 0.2, y has a range from about .01 to about 0.1, and z has a range from a value approaching but not equal to 0.0 to about 0.02.

33. (Currently amended) The electroless plating structure according to claim 32, wherein the composition of $pM_w sM_x B_y P_z$ is selected from the group consisting of: pMBP, pMCrBP, pMMoBP, pMWBP, pMMnBP, pMTcBP, and pMReBP, ~~pMPdBp~~, ~~pMPdCrBP~~, ~~pMPdMoBP~~, ~~pMPdWBP~~, ~~pMPdMnBP~~, ~~pMPdTcBP~~, and ~~pMPdReBP~~.

34. (Currently amended) The electroless plating structure according to claim 32, wherein pM comprises at least one of Co, Rh, and Ir.

35. (Currently amended) An electroless plating structure on a ~~metal-six~~
copper (M_6Cu) pad, having a composition comprising:



wherein sM is a secondary metal selected from zero to at least one of
~~Cu, Ag, Au, Pd, Pt, Ni, Rh, Ir, Cr, Mo, W, Mn, and Tc, and Re;~~

wherein Co , B , and P represent cobalt, boron, and phosphorus,
respectively; and

wherein w has a range from about 0.5 to about 0.99, x has a range from
about 0.0 to about 0.2, y has a range from about .01 to about 0.1, and z has a
range from a value approaching but not equal to 0.0 to about 0.02.

36. (Currently amended) The electroless plating structure of claim 35
wherein the composition of $Co_w sM_x B_y P_z$ is selected from the group consisting of:
~~sMCeB, sMCoBP, sMCeCrB, sMCoCrBP, sMCeMoB, sMCoMoBP, sMCeWB,~~
~~sMCoWBP, sMCeMnB, sMCoMnBP, sMCeTeB, sMCoTcBP, sMCeReB, and~~
~~sMCoReBP.~~

37. (Cancelled)